

## Claims

1. A method of operating a mobile station in a satellite mobile telephone system, the method comprising the steps of:

5 decoding all of a set of neighbouring cell data transmitted in a broadcast channel to generate a neighbouring cell list;

making signal measurements for the cells in said list and the current serving cell;

10 decoding a portion only of the set of neighbouring cell data transmitted in the broadcast channel and modifying the neighbouring cell list in dependence thereon; and

making signal measurements for the cells in said list and the current serving cell.

15 2. A method according to claim 1, including the steps of decoding a further portion of said set on reception of a decode instruction in the broadcast channel and modifying the neighbouring cell list in dependence thereon.

3. A method according to claim 2, wherein the data in said portion changes more  
20 rapidly than the data in said further portion.

4. A method according to claim 1, 2 or 3, wherein the neighbouring cell data comprises information identifying a beacon frequency for each cell.

25 5. A method according to any preceding claim 1, 2 or 3, including:  
comparing said measurements; and  
if the best measurement is not for the currently serving cell, camping on the cell to which the best measurement applies.

6. A mobile station for a satellite mobile telephone system, the mobile station comprising transceiver means and control means, wherein the control means is

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programmed so as to cause the mobile station to operate according to any preceding claim.

7. A method of operating a mobile satellite telephone system comprising the  
5 steps of:

transmitting neighbouring cell data in a broadcast channel, the neighbouring  
cell data comprising a first portion relating to cells served by a first satellite in an  
orbit having a first plane and a second portion relating to cells served by a second  
satellite in an orbit having a second, different plane; and

10 transmitting neighbouring cell data in the broadcast channel, the second part  
of the cell data being modified in dependence on the relative motion of the first and  
second satellites.

8. A method according to claim 7, wherein the neighbouring cell data comprises  
15 information identifying a beacon frequency for each cell.

9. A method according to claim 8, including transmitting a decode instruction  
when data in the first portion of the cell data is modified.

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